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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	Chappel, R. <i>et al.</i>	Examiner:	Hines, J.
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For:	Leptospira pathogens		

## EXHIBIT A

1/3

APPROVED	O. G. FIG.
BY	CLASS/SUBCLASS
DRAFTSMAN	



Figure 1

2/3

APPROVED	O. G. FIG.
BY	CLASS SUBCLASS
DRAFTSMAN	

1 50

HURSTBRIDGE CCGAG TCTGG GATAA CTTTC CGAAA GGAAG GCTAA TACCG GATAG TCCCG

LYME CCGAG TCTGG GATAA CTTTC CGAAA GGAAG GCTAA TACCG GATAG TCCCG

RANARUM CCGAG TCTGG GATAA CTTTC CGAAA GGAAG GCTAA TACTG GATAG TCCCG

CELLEDONI CCGAG TCTGG GATAA CTTTC CGAAA GGAAG GCTAA TACTG GATAG TCCCG

SHERMANI CCGAG TCTGG GATAA CTTTC CGAAA GGAAG GCTAA TACTG GATAG TCCCG

JAVANICA CCGAG TCTGG GATAA CTTTC CGAAA GGAAG GCTAA TACTG GATAG TCCCG

PANAMA CCGAG TCTGG GATAA CTTTC CGAAA GGAAG GCTAA TACTG GATAG TCCCG

CYNOPTERI CCGAG TCTGG GATAA CTTTC CGAAA GGAAG GCTAA TACTG GATAG TCCCG

ICTERO- CTGAG TCTGG GATAA CTTTC CGAAA GGAAG GCTAA TACTG GATAG TCCCG

HAEMORRHAGIAE \* \* \* \*

51 100

HURSTBRIDGE TTGGA TCACA AGATT TGATA GGTAA AGATT TATTG CTTGG AGATG AGCCC

LYME CTGGA TCACA GGATC TGATA GGTAA AGATT TATTG CTTGG AGATG AGCCC

RANARUM AGAGA TCATA AGATT TTTCG GGTAA AGATT CATTG CTTGG AGATG AGCCC

CELLEDONI AGAGG TCATA TGATT TTTCG GGTAA AGATT TATTG CTCGG AGCTG AGCCC

SHERMANI ATAGA TCATA GGATG TATCG GGTAA AGATT CATTG CTCGG AGATG AGCCC

JAVANICA AGAGG TCATA GGATT TTTCG GGTAA AGATT TATTG CTCGG AGATG AGCCC

PANAMA AGAGA TCATA AGATT TTTCG GGTAA AGATT CATTG CTCGG AGATG AGCCC

CYNOPTERI AGAGA TCATA AGATT TTTCG GGTAA AGATT TATTG CTCGG AGATG AGCCC

ICTERO- AGAGA TCATA AGATT TTTCG GGTAA AGATT TATTG CTCGG AGATG AGCCC

HAEMORRHAGIAE \*\*\* \* \* \* \*

Figure 2a

	151		200
HURSTBRIDGE	GTAGC	CGGCC	TGAGA GGGTG TCCGG CCACA ATGGA ACTGA GACAC GGTCC
LYME	GTAGC	CGGCC	TGAGA GGGTG TCCGG CCACA ATGGA ACTGA GACAC GGTCC
RANARUM	GTAGC	CGGCC	TGAGA GGGTG TTCCG CCACA ATGGA ACTGA GACAC GGTCC
CELLEDONI	GTAGC	CGGCC	TGAGA GGGTG TTCCG CCACA ATGGA ACTGA GACAC GGTCC
SHERMANI	GTAAC	CGGCC	TGAGA GGGTG TTCCG CCACA ATGGA ACTGA GACAC GGTCC
JAVANICA	GTAGC	CGGCC	TGAGA GGGTG TTCCG CCACA ATGGA ACTGA GACAC GGTCC
PANAMA	GTAGC	CGGCC	TGAGA GGGTG TTCCG CCACA ATGGA ACTGA GACAC GGTCC
CYNOPTERI	GTAGC	CGGCC	TGAGA GGGTG TTCCG CCACA ATGGA ACTGA GACAC GGTCC
ICTERO -	GTAGC	CGGCC	TGAGA GGGTG TTCCG CCACA ATGGA ACTGA GACAC GGTCC
HAEMORRHAGIAE	*		* TTCCG CCACA ATGGA ACTGA GACAC GGTCC

Figure 2b